

# Bellwork

## 17-Aug-2015

- I. Where is the fire extinguisher?
- II. What is the most important thing to remember when doing a lab?
- III. How do you clean up broken glass?
- IV. Draw the room with the nearest exit to your lab bench identified, eyewash station, and electrical off switches.

# Agenda

Lab safety

Groups of the Periodic Table presentation

Objective:

You will be able to identify all the major safety features in the lab and explain how to deal with foreseeable safety incidents.

# EQ

What is the relationship between measuring units, commerce, and education?

# Safety Regulations



# Why?

- You will be working with materials and apparatus, which, if handled carelessly or improperly, have the potential to cause injury or discomfort to someone else as well as yourself.



# Fill in the blanks!

- 1. Report any accident to the teacher immediately, no matter how minor, including reporting any burn, scratch, cut, or corrosive liquid on skin or clothing.



- 2. Prepare for each laboratory activity by reading all instructions. Follow all directions implicitly and intelligently. Make note of any modification in procedure given by the instructor.



- 3. Any science project, or individually planned experiment, must be approved by the teacher.





- 4. Use only those materials and equipment authorized by the instructor.



- 5. Inform the teacher immediately of any equipment not working properly.



- 6.Clean up any nonhazardous spill on the floor or workspace immediately.



- 7. Wear appropriate eye protection, as directed by the instructor, whenever you are working in the laboratory. Safety goggles must be worn during hazardous activities involving caustic/corrosive chemicals, heating of liquids, and other activities that may injure the eyes.

If you work without  
safety glasses,  
you might not die,  
but you could  
lose an eye.



- 8. Splashes and fumes from hazardous chemicals present a special danger to wearers of contact lenses. Therefore, students should preferably wear regular glasses inside splash-proof goggles during all lab activities where exposure to chemicals or chemical fumes is possible.



- 9. Students with open skin wounds on hands must wear gloves or be excused from the laboratory activity.



- 10. Never carry hot equipment or dangerous chemicals through a group of students.





- 11. Check labels and equipment instructions carefully. Be sure correct items are used in the proper manner.





- 12. Never taste anything or touch chemicals with the hands, unless specifically instructed to do so.



- 13. Test for odor of chemicals only by waving your hand above the container and sniffing cautiously from a distance.



- 14. Eating or drinking in the laboratory or from laboratory equipment is not permitted, including gum.



- 15. Use a pipette (never the mouth) when measuring or transferring small quantities of liquid with a pipette.



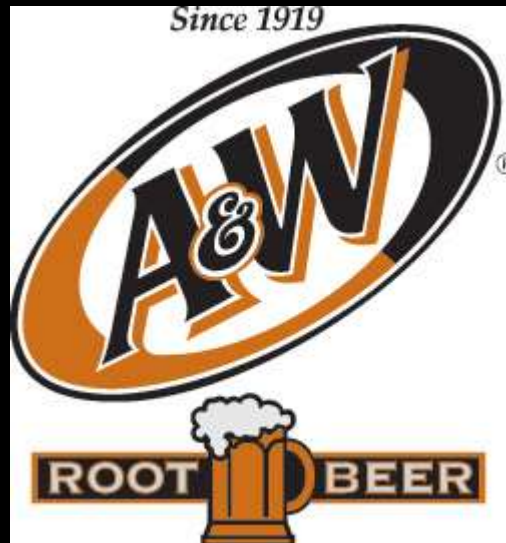
- 16. When heating material in a test tube, do not look into the tube or point it in the direction of any person during the process.



- 17. Never pour reagents back into bottles, exchange stoppers of bottles, or lay stoppers on the table.



- 18. When diluting acids, always pour acids into water, never the reverse. Combine the liquids slowly while stirring to distribute heat buildup throughout the mixture.



- 19. Keep hands away from face, eyes, and clothes while using solutions, specimens, equipment, or materials in the laboratory. Wash hands as necessary and wash thoroughly at the conclusion of the laboratory period.





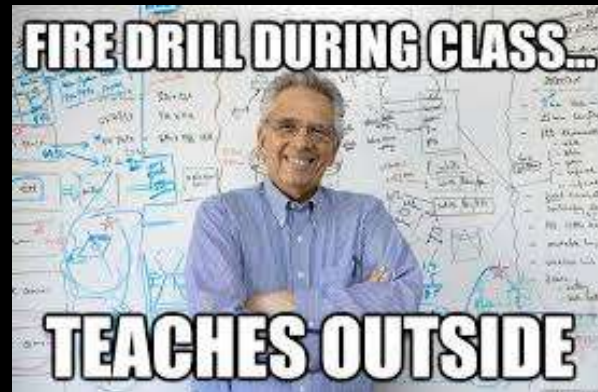
- 20. To treat a burn from an acid or base, wash the affected area immediately with plenty of running water. If the eye is involved, irrigate it at the eyewash station without interruption for 15 minutes. Report the incident to your instructor immediately.



- 21. Know the location of the emergency eyewash and face-wash station, fire blanket, fire extinguisher, fire alarm box, and exits.



- 22. Know the proper fire drill procedures.



- 23. Roll long sleeves above the wrist. Long, hanging necklaces, bulky jewelry, and excessive and bulky clothing should not be worn in the laboratory.



- 24. Tie back long hair during a laboratory activity.



- 25. Wear shoes that cover the toes, rather than sandals, in the laboratory.



- 26. Keep work areas clean. Floors and aisles should be kept clear of equipment and materials.

**How to clean DEMO...**



- 27. Light gas burners only as instructed by the teacher. Be sure no volatile materials (such as alcohol or acetone) are being used nearby.

Vapors can jump! DEMO...

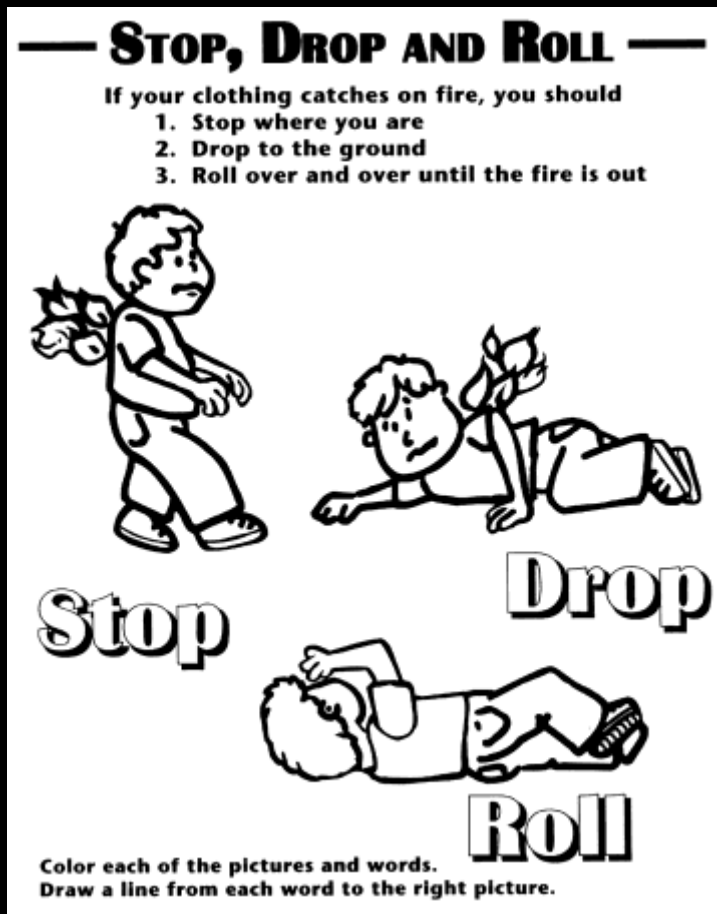




- 28. Use a burner with extreme caution. Keep your head and clothing away from the flame and turn it off when not in use.



- 29. Use a fire blanket (stop, drop, and roll) to extinguish any flame on a person.



- 30. Dispose of laboratory waste as instructed by the teacher. Use separate, designated containers (not the wastebasket) for the following:
  - Matches
  - Broken and waste glass
  - Rags, paper towels, or other absorbent materials used in the cleanup of flammable solids or liquids
  - Hazardous/toxic liquids and solids



- 31. Place books, purses, and electronic devices in the designated storage area. Take only laboratory manuals and notebooks into the working area.

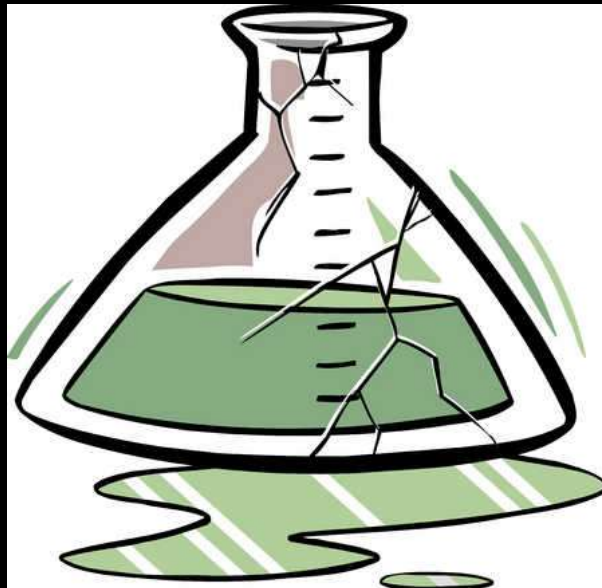


- 32. Students are not permitted in laboratory storage rooms or teachers' workrooms without the approval of the teacher.

- 33.Remove all broken glass from the work area or floor as soon as possible. Never handle broken glass with bare hands; use a counter brush and dustpan.



- 34. Report broken glassware, including thermometers, to the instructor immediately.



- 35. Operate electrical equipment only in a dry area and with dry hands.





- 36. When removing an electrical plug from its socket, pull the plug, not the electrical cord.



- 37. Treat all animals in the science laboratory humanely; that is, with respect and consideration for their care.

Even these guys...girls?



- 38. Always approach laboratory experiences in a serious and courteous manner.

- 39. Always clean the laboratory area before leaving.

- 40. Students and teacher wash hands with soap and water before leaving the laboratory area.

# Safety Quiz

In order to be in the lab starting the 24<sup>th</sup> of Aug, you must have earned a 100% on the quiz. It can be retakes as many time as you like, 1x per day and out side of class time.

# Closure

- Turn to your neighbor and tell them two new things about safety you learned today that you don't remember learning before.

# Homework

## 17-Aug-2015

Finish basic math skills paper and be prepared to ask questions on block day regarding issues you had.